

Azure Sql

Microsoft Azure

Upgrade

Search resources, services, and docs (G+)

Copilot

reddylkp200

DEFAULT DIRECT

Home

CreateVm-MicrosoftWindowsServer.WindowsServer-202-20260210161333

Overview

Uwindows01

Virtual machine

Help me copy this VM in any region

Manage this VM with Azure CLI

Search

Overview

Activity log

Access control (IAM)

Tags

Diagnose and solve problems

Monitor

Resource visualizer

Connect

Networking

Network settings

Load balancing

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Settings

Disks

Extensions + applications

Add or remove favorites by pressing Ctrl+Shift+F

Uwindows01 virtual machine agent status is not ready. Troubleshoot the issue

Help me copy this VM in any region

Connect

Start

Restart

Stop

Hibernate

Capture

Delete

Refresh

Scale

Open in mobile

Feedback

CLI / PS

Resource group (move) : Uirg01

Status : Running

Location : Central US

Subscription (move) : Azure subscription 1

Subscription ID : 5d75b66d-66bf-44e0-8d7e-7e61e4b043d7

Operating system : Windows (Windows Server 2025 Datacenter Azure Edition)

Size : Standard DC1ds v3 (1 vcpu, 8 GiB memory)

Primary NIC public IP : 20.9.84.104

Virtual network/subnet : vnet-centralus/snet-centralus-1

DNS name : Not configured

Health state : -

Time created : 10/02/2026, 11:01 UTC

Tags (edit) : Add tags

Properties

Monitoring

Capabilities (8)

Recommendations

Tutorials

Virtual machine

Computer name : Uwindows01

Operating system : Windows

VM generation : V2

VM architecture : x64

Networking

Public IP address : 20.9.84.104 (Network interface uwindows01327)

Public IP address (IPv6) : -

Private IP address : 172.16.0.4

Create SQL Database ...

Microsoft

Project details

Select the subscription to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Azure subscription 1

Resource group * ⓘ

(New) Usql-rg

[Create new](#)

Database details

Enter required settings for this database, including picking a logical server and configuring the compute and storage resources

Database name *

Ucentralusdb

Server * ⓘ

(new) usqlcentralus (Central US)

[Create new](#)

Want to use SQL elastic pool? ⓘ

☐ Yes ☒ No

Workload environment

☒ Development
☐ Production

i Default settings provided for Development workloads. Configurations can be modified as needed.

Compute + storage * ⓘ

Basic

2 GB storage

[Configure database](#)

Backup storage redundancy

Choose how your PITR and LTR backups are replicated. Geo restore or ability to recover from regional outage is only available when geo-redundant storage is selected.

Backup storage redundancy ⓘ

☒ Locally-redundant backup storage
☐ Zone-redundant backup storage
☐ Geo-redundant backup storage
☐ Geo-Zone-redundant backup storage

[Review + create](#)

[Next : Networking >](#)

Create SQL Database ...

Microsoft

Basics **Networking** Security Additional settings Tags Review + create

Configure network access and connectivity for your server. The configuration selected below will apply to the selected server 'usqlcentralus' and all databases it manages. [Learn more](#)

Network connectivity

Choose an option for configuring connectivity to your server via public endpoint or private endpoint. Choosing no access creates with defaults and you can configure connection method after server creation. [Learn more](#)

Connectivity method * ⓘ

☐ No access

☒ Public endpoint

☐ Private endpoint

Firewall rules

Setting 'Allow Azure services and resources to access this server' to Yes allows communications from all resources inside the Azure boundary, that may or may not be part of your subscription. [Learn more](#)

Setting 'Add current client IP address' to Yes will add an entry for your client IP address to the server firewall.

Allow Azure services and resources to access this server *

No Yes

Add current client IP address *

No Yes

Connection policy

Review + create < Previous Next : Security >

Create SQL Database ...

Microsoft

Basics Networking Security **Additional settings** Tags Review + create

Customize additional configuration parameters including collation & sample data.

Data source

Start with a blank database, restore from a backup or select sample data to populate your new database.

Use existing data *

None Backup Sample

AdventureWorksLT will be created as the sample database.

Database collation

Database collation defines the rules that sort and compare data, and cannot be changed after database creation. The default database collation is SQL_Latin1_General_CP1_CI_AS. [Learn more](#)

Collation ⓘ

SQL_Latin1_General_CP1_CI_AS

Review + create < Previous Next : Tags >

Create SQL Database ...

Microsoft

Basics

Subscription	Azure subscription 1
Resource group	Usql-rg
Region	Central US
Database name	Ucentralusdb
Server	(new) usqlcentralus
Authentication method	SQL authentication
Server admin login	azureuser
Compute + storage	Basic: 2 GB storage
Backup storage redundancy	Locally-redundant backup storage

Networking

Allow Azure services and resources to access this server	Yes
Add current client IP address 49.206.40.158	Yes
Private endpoint	None
Minimum TLS version	1.2
Connection Policy	Default

Security

Identity	Not enabled
Transparent data encryption (Server level)	Service-managed key selected
Database level customer-managed key	Not configured
Database level user assigned managed identity	Not configured
Advanced data security	Not now
Always Encrypted with secure enclaves	Not configured
Sql Ledger(Database)	Disabled
Digest Storage	Disabled

Additional settings

Use existing data	Sample
Collation	SQL_Latin1_General_CP1_CI_AS

Tags

Create

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[Download a template for automation](#)

Home > Microsoft.SqlDatabase.newDatabaseNewServer_5f58e1768d4a4006b065c | Overview

Ucentralusdb (usqlcentralus/Ucentralusdb)

SQL database

Find stale statistics | List the access control settings for this SQL database. | Top CPU consuming queries

Search

Copy | Restore | Export | Set server firewall | Delete | Connect with... | Feedback

Overview

- Activity log
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- Diagnose and solve problems
- Query editor (preview)
- Mirror database in Fabric (preview)
- Resource visualizer
- Settings
- Data management
- Integrations
- Power Platform
- Security
- Intelligent performance
- Monitoring
- Automation
- Tools

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Essentials

Resource group (move)	: Usql-rg	Server name	: usqlcentralus.database.windows.net
Status	: Online	Elastic pool	: No elastic pool
Location	: Central US	Connection strings	: Show database connection strings
Subscription (move)	: Azure subscription 1	Pricing tier	: Basic
Subscription ID	: 5d75b66d-66bf-44e0-8d7e-7e61e4b043d7	Earliest restore point	: No restore point available
Tags (edit)	: Add tags		

Getting started | Monitoring | Properties | Features | Notifications (0) | Integrations | Tutorials

Start working with your database

Connect to your database and start working with data with a few simple steps. [Learn more](#)

- Configure access
- Connect to application
- Start developing
- Mirror data

- ✓ I have created database on **Azure SQL** which is **PaaS model**
- ✓ Above created was **sample database** by giving **Public Access**
- ✓ **Next copy Server name above and paste on windows machine on cloud in Sql Server, shown in below and connect to DB.**

Connect

History | Browse

Recent Connections

No connection history to display.

Connection Properties | Connection String

Server Name: usqlcentralus.database.windows.net

Authentication: SQL Server Authentication

User Name: azureuser

Password: ••••••••

☐ Remember Password

Database Name: <default>

Encrypt: Mandatory

☐ Trust Server Certificate

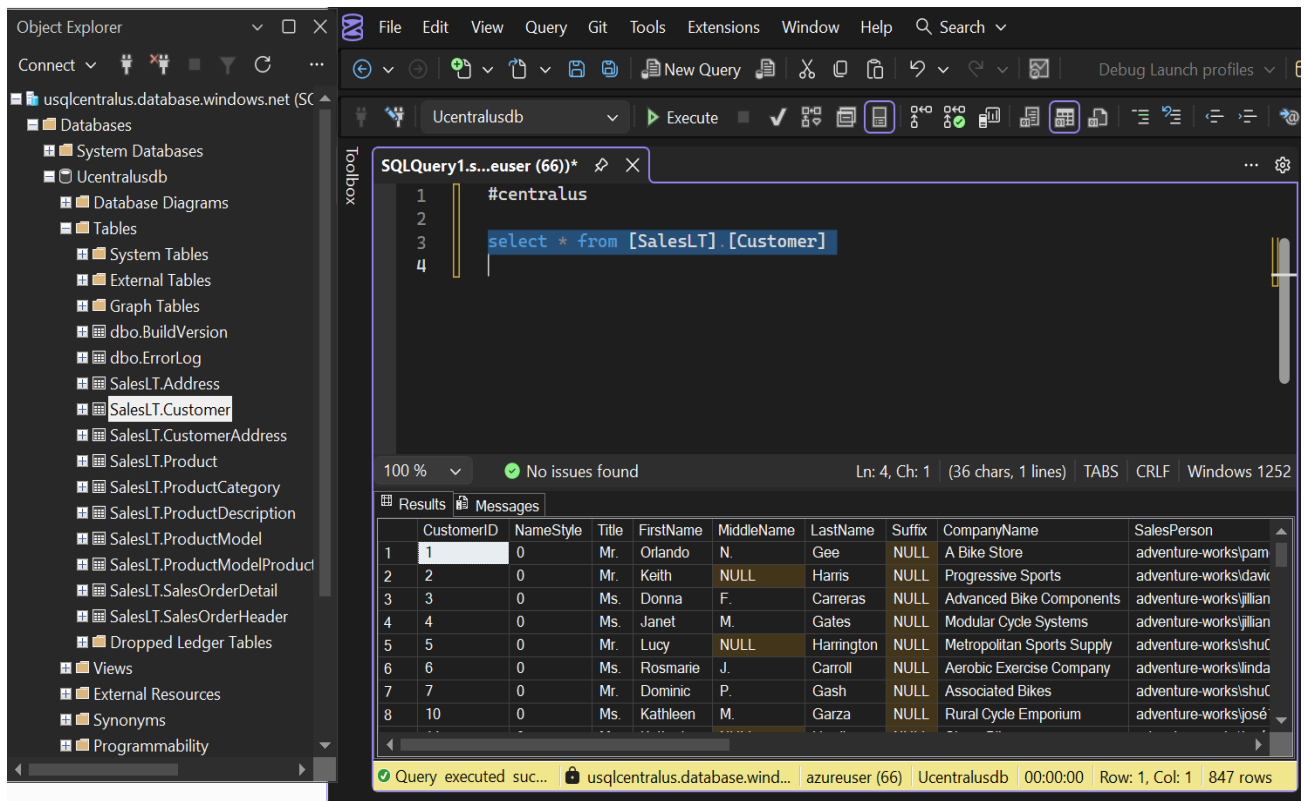
Advanced...

Custom Properties

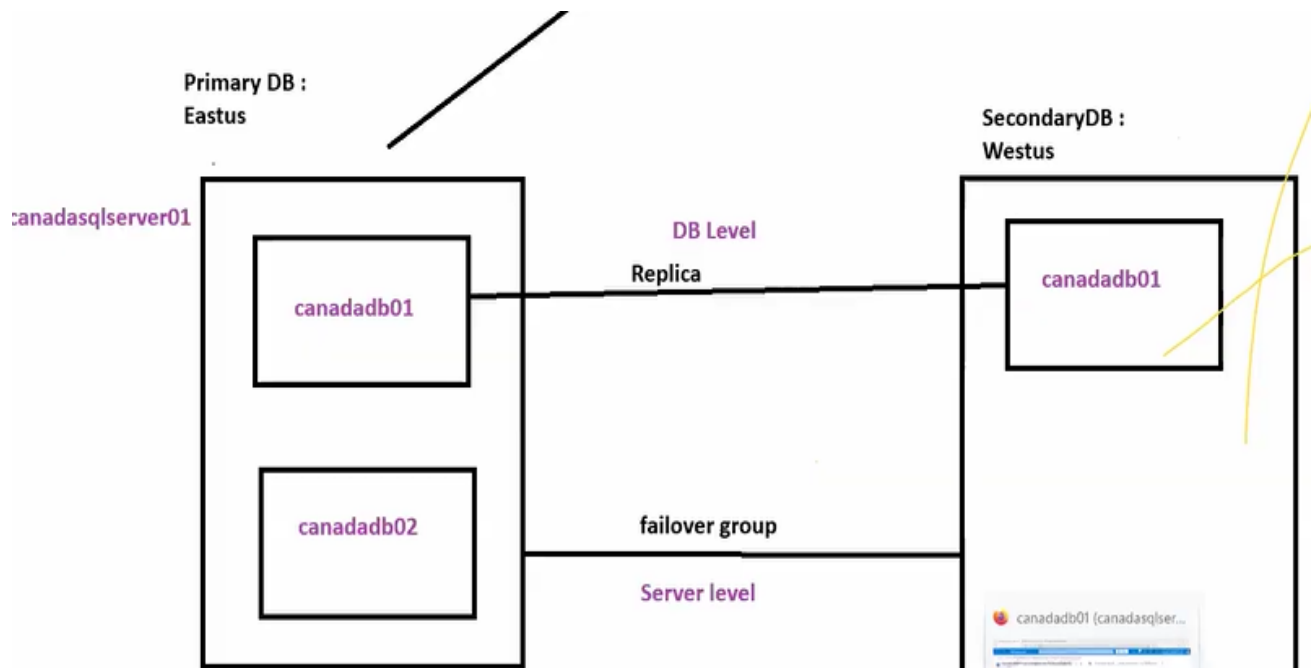
Name:

Color: <default> | Custom... |

Reset | Connect | Cancel



- ✓ So, by using this, SQL developer do altering & modifications and all.
- ✓ This database every user can Access.
- ✓ Now let's do replica, to create same database in another region, why bcz if anything goes wrong, we cloud able to access from different region.



✓ To create replica, we should be on database level

Home > Microsoft.SQLDatabase.newDatabaseNewServer_5f58e1768d4a4006b065c | Overview > Ucentralusdb (usqlcentralus/Ucentralusdb)

Ucentralusdb (usqlcentralus/Ucentralusdb) | Replicas ☆ ...

SQL database

Search < < + Create replica Refresh Feedback

Overview
Activity log
Tags
Diagnose and solve problems
Query editor (preview)
Mirror database in Fabric (preview)
Resource visualizer
Settings
Data management
Replicas
Sync to other databases

Geo replicas for your database are listed below. Geo replicas reside on a different logical server from the primary and protect against regional failures or prolonged data center outage. [Learn more](#)

Name ↑↓	Server ↑↓	Region ↑↓	Failover policy ↑↓	Pricing tier ↑↓	Replica state ↑↓
No replicas found					

✓ Click on create server and create Italy server on Italy region.

Create SQL Database Server ...

Microsoft

Server name *

italyserver01 ✓

.database.windows.net

Location *

(Europe) Italy North ▼

☒ Allow Azure services to access server ⓘ

Authentication

i Azure Active Directory (Azure AD) is now Microsoft Entra ID. [Learn more](#) ↗

Select your preferred authentication methods for accessing this server. We recommend using only Microsoft Entra authentication [Learn more](#) ↗ using an existing Microsoft Entra user, group, or application as Microsoft Entra admin [Learn more](#) ↗

Authentication method

- ☐ Use Microsoft Entra-only authentication
☐ Use both SQL and Microsoft Entra authentication
☒ Use SQL authentication

Server admin login *

Enter server admin login

Password *

..... ✓

OK

Create SQL Database - Geo Replica ...

Microsoft

Subscription ⓘ

Azure subscription 1

Resource group ⓘ

Usql-rg

Primary database details

Additional settings will be defaulted where possible based on the the primary database.

Primary database

Ucentralusdb

Region

centralus

Geo-secondary database details

Project details

Select the subscription of geo secondary database to manage deployed resources and costs. Use resource groups like folders to organize and manage all your resources.

Subscription * ⓘ

Azure subscription 1

Resource group * ⓘ

Usql-rg

[Create new](#)

Database details

Enter required settings for this database, including picking a logical server and configuring the compute and storage resources

Database name

Ucentralusdb

Server * ⓘ

(new) italyserver01 (Italy North)

[Create new](#)

Region

Italy North

Want to use SQL elastic pool? ⓘ

☐

Yes

☒

No

Compute + storage * ⓘ

Basic

2 GB storage

[Configure database](#)

Transparent data encryption key management

Transparent data encryption encrypts your databases, backups, and logs at rest without any changes to your application.

[Review + create](#)

[Next: Networking >](#)

Create SQL Database - Geo Replica ...

Microsoft

Basics **Networking** Additional settings Review + create

Configure networking access for your server.

Firewall rules

Allow Azure services and resources to access this server ⓘ

Yes

No

Create SQL Database - Geo Replica ...

Microsoft

Basics

Subscription	Azure subscription 1
Resource group	Usql-rg
Primary database	Ucentralusdb
Region	Italy North
Database name	Ucentralusdb
Server	(new) italyserver01
Authentication method	SQL authentication
Server admin login	azureuser
Compute + storage	Basic: 2 GB storage
Database level customer-managed key	Not configured
Database level user assigned managed identity	Not configured
Backup storage redundancy	Locally-redundant backup storage

Networking

Allow Azure services to access server	Yes
---------------------------------------	-----

Additional settings

Enable Microsoft Defender for SQL	Not now
-----------------------------------	---------

Create

< Previous

[Download a template for automation](#)

✓ Below created Italy server.

Ucentralusdb (italyserver01/Ucentralusdb) SQL database

SQL database connection timing out? List the access control settings for this SQL database. Top CPU consuming queries

Search Copy Restore Export Set server firewall Delete Connect with... Feedback

Overview

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 - Sync to other databases
- Integrations
- Power Platform

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Essentials

Resource group (move)	: Usql-rg	Server name	: italyserver01.database.windows.net
Status	: Online	Elastic pool	: No elastic pool
Location	: Italy North	Connection strings	: Show database connection strings
Subscription (move)	: Azure subscription 1	Pricing tier	: Basic
Subscription ID	: 5d75b66d-66bf-44e0-8d7e-7e61e4b043d7	Earliest restore point	: No restore point available
		Replica type	: Geo
		Primary database	: Ucentralusdb

Tags (edit) : [Add tags](#)

Getting started Monitoring Properties Features Notifications (0) Integrations Tutorials

Start working with your database

Connect to your database and start working with data with a few simple steps. [Learn more](#)

✓ Now let's connect to DB by using Italyserver name above.

Connect

History Browse

Recent Connections

usqlcentralus.database.windows.net, <default> (azureuser)

usqlcentralus.database.windows.net, <default> (azureuser)

Connection Properties Connection String

Server Name: italyserver01.database.windows.net

Authentication: SQL Server Authentication

User Name: azureuser

Password:

☐ Remember Password

Database Name: <default>

Encrypt: Mandatory

☐ Trust Server Certificate

[Advanced...](#)

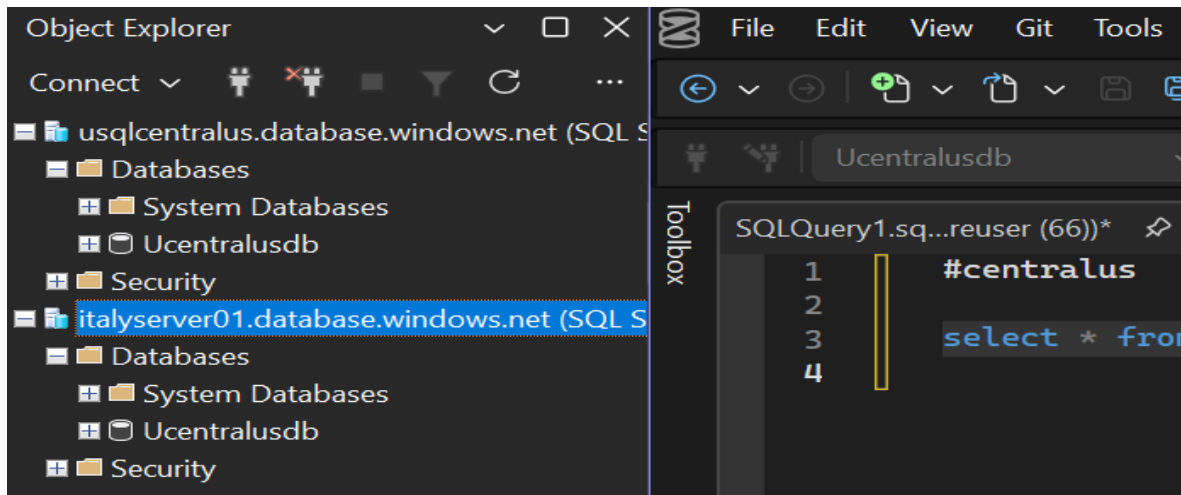
Custom Properties

Name:

Color: <default> [Custom...](#) ☐

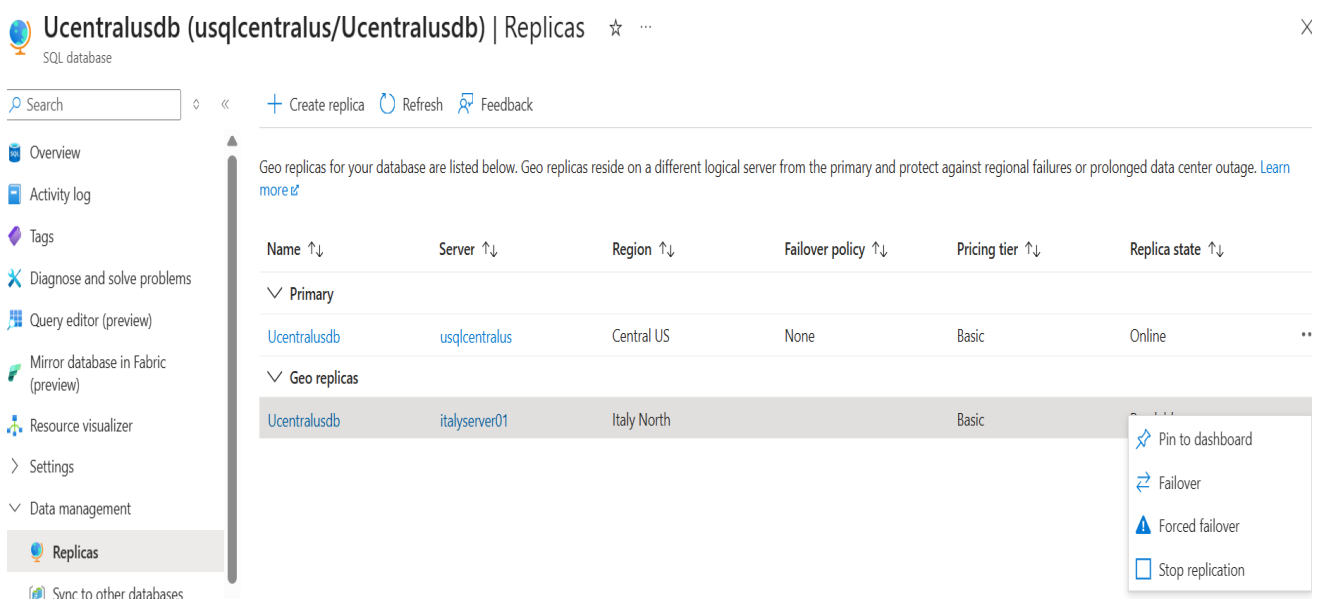
[Reset](#) [Connect](#) [Cancel](#)

- ✓ Below we can see same database in two different Regions and we connected both
 - First- (central us)-Primary
 - Second-(Italy)-Secondary



Important:

- ✓ Whatever changes we do in **primary data** it will sink to **secondary data** within milli-sec.
- ✓ Data will always be replicating from primary to secondary only
- ✓ Primary (Read, Write, Delete) permissions
- ✓ Secondary (Only Read) permissions, we can't do changes here.
 - If due to any problem primary data down then secondary data will be primary.

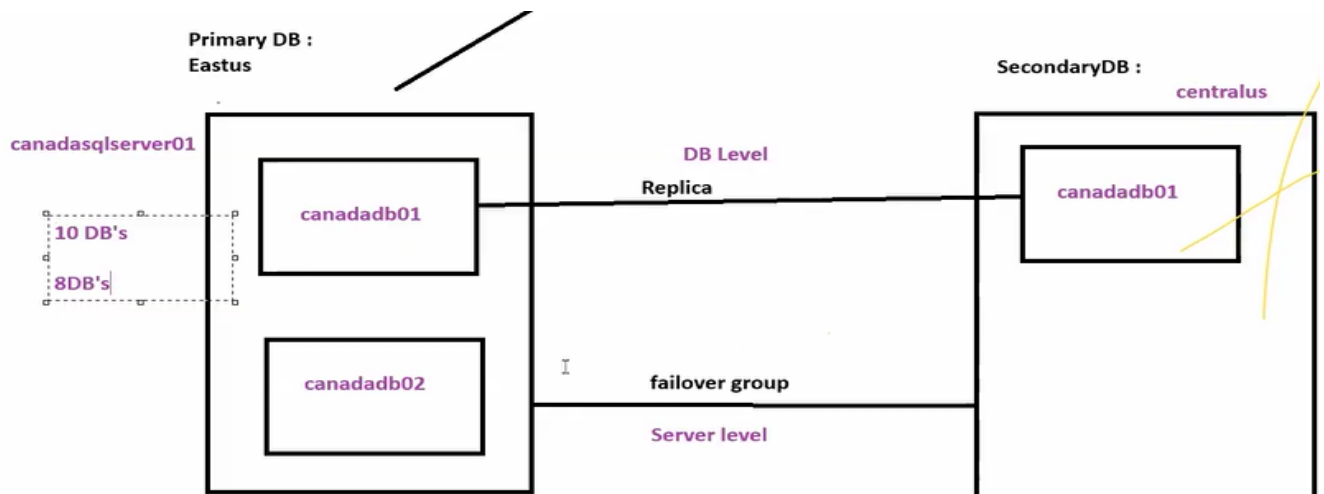


✓ Above let's do force failover on Primary database then on secondary database we can do changes (Read,Write,Delete).

➤ Above we have done Replica and Failover on database to database only.


➤ **Example:** On one Physical server there will be multiple databases, so we can select databases by choosing and replicate to another server.

○ **DB Level & Server Level**



Failover group for Lab:

- ✓ Create 2databases on Sqlserver in Southindia,
- ✓ Select southindia Sqlserver and go to
Data Management→Failover group→Add Group→Choose any
region and replicate database(southindia) to centralindia

 **southindia983 | Failover groups** ☆ ...

SQL server

[+ Add group](#) [Refresh](#) [Feedback](#)

Overview

Activity log

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Quick start

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Resource visualizer

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Data management

Backups

Deleted databases

Failover groups ☆

Import/Export history

 Failover groups are a SQL server feature designed to manage replication, connectivity and failover of a set of data.

Name	Primary server	Secondary server	Read/Write failover policy
You have no group created			

Failover group ...

 Failover policy has been set to the recommended value of Customer managed. [Learn more](#) 

Failover group name *

Server * 

[Create new](#) 

Database within the group 

Not configured yet

2 databases eligible

[Configure database](#)

✓ **Above Click on create new and create Server**

New server ...

Server name *

centralindia90

.database.windows.net

Server admin login *

sqladmin

Password *

••••••••••

Confirm password *

••••••••••

Location *

(Asia Pacific) Central India

☒ Allow Azure services to access server



Select

Failover group name *

centralindia01

Server * ⓘ

(new) centralindia90

[Create new](#)

Database within the group ⓘ

Not configured yet

2 databases eligible

[Configure database](#)

✓ Above click on **Configure database**

Databases ...

for failover group

Select all

Filter items...

	↑↓ Name	Role	Secondary server	Status
<input checked="" type="checkbox"/>	db01			Online
<input checked="" type="checkbox"/>	db-02			Online

Showing 1 - 2 of 2 results.

Create standby replica ⓘ

No Yes

Summary

Databases on secondary (excluding ones in Elastic Pools)

Elastic Pools on secondary server

2

0

Monthly cost

USD 11.20

Select

- ✓ After choosing databases when we click on select those 2 databases are selected for replication on secondary server.
- ✓ South India (**Primary**) & Central India (**Secondary**)

Failover group ...

Failover policy has been set to the recommended value of Customer managed. [Learn more](#)

Failover group name *

centralindia01

Server * ⓘ

(new) centralindia90

[Create new](#)

Database within the group ⓘ

2 databases selected

2 databases eligible

[Configure database](#)

Create

- ✓ 2databases are selected and click on create, then databases will be replicate from south India to central India server.

- ❖ **Azure SQL is a PaaS model, everything is managed by cloud vendor, we can create databases and replicate in different regions.**
- ❖ **Backend network replication configuration will be take care of Azure vendor, we just have to enable it, automatically in different site it will create servers and databases will deploy in those servers.**
- ❖ **Replication, backup etc we should do on database level only bcz database is critical and every log is very important in database, so we cannot use server for backup, we use database level only**
- ❖ **In IaaS model also we go to database level and choose transaction logs and other logs and we will keep Backup in another database and will monitor those logs.**